Pathways to Effective Programs and Positive Outcomes

Formerly Achieving Outcomes: A Practitioner's Guide to Effective Prevention

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Substance Abuse and Mental Health Services Administration
Center for Substance Abuse Prevention
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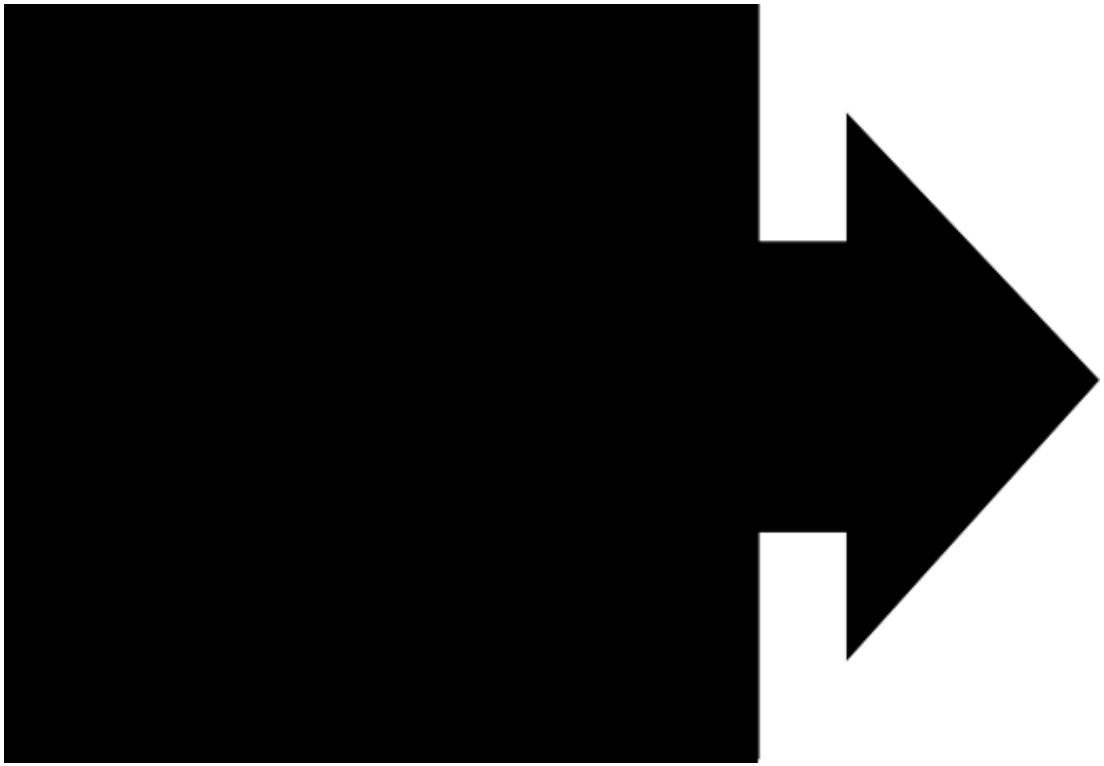
Pathways to Effective Programs and Positive Outcomes



This publication marks SAMHSA's commitment to bringing effective prevention to every community.

One of several in a new series of knowledge tools, *Pathways to Effective Programs and Positive Outcomes* presents a logical framework and practical process for achieving prevention outcomes. The process includes:

- determining needs, underlying conditions, resources, and gaps in prevention services;
- building organizational capacity;
- selecting best-fit programs and/or interventions;
- implementing the program(s) or intervention(s) using action plans and feedback; and
- creating an evaluation report.

Pathways is grounded in extensive collaboration between SAMHSA's CSAP and many of the constituent groups that make up the prevention field. Originated by acknowledged leaders from the evaluation community, then pilot tested with the Drug Free Communities grantees and made increasingly more customer-driven by representatives of CSAP's Centers for the Application of Prevention Technology (CAPTs) and successive groups of practitioners, this process is the product of the two major tenets it encourages—(1) evaluating continuously to create a "learning community" and (2) teaming to achieve results.

As SAMHSA's CSAP continues to identify and encourage effective prevention programs and practices and to provide capacity-building opportunities for States and communities, these knowledge tools will evolve in nature and content. Throughout this evolutionary process, SAMHSA's CSAP continues to collaborate with States, intermediary organizations, community practitioners, and coalition leaders to listen and learn about the challenges encountered in moving science to service and prevention service to prevention science. SAMHSA's CSAP is committed to integrating this feedback and developing new guidance to support the prevention field as it continues to grow and advance.

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Foreword

PATHWAYS presents a capacity-building framework and process for demonstrating and documenting outcomes.

Prevention works!

You know that. You also know that communities and funders want results. They want outcomes. Moreover, you want to demonstrate that your program(s)* work, that the changes taking place are meaningful for your organization or community and do justice to your efforts. The good news is that if you follow the process outlined in PATHWAYS, you are likely to see measurable outcomes. You will have empirical evidence that what you are doing is accomplishing what you intended.

PATHWAYS presents a capacity-building process for demonstrating and documenting outcomes. PATHWAYS was developed by SAMHSA's Center for Substance Abuse Prevention (CSAP) in response to requests from the prevention field for guidance on how community-based practitioners could better ensure and demonstrate their effectiveness.

PATHWAYS is the product of extensive collaboration between SAMHSA's CSAP and its constituent groups, particularly the Community Anti-Drug Coalitions of America (CADCA), the National Prevention Network (NPN), CSAP's regional Centers for the Application of Prevention Technologies (CAPTs), Drug Free Communities grantees, Weed and Seed partnerships, and the broader evaluation community. The process is user friendly and responsive to queries and concerns expressed by practitioners seeking demonstrated effectiveness.

**As used throughout this publication, the term "program" refers to the sum total of organized, structured interventions, including environmental initiatives, designed to change social, physical, fiscal, or policy conditions within a definable geographic area or for a defined population.*

It is not the purpose of this process to turn you into an expert evaluator.

Its purpose is to turn you into an educated consumer so that you can work confidently, comfortably, and credibly with anyone who can help you achieve and demonstrate your success.

PATHWAYS is a process—a way to think about how to make meaningful connections among people, neighborhoods, and interventions. The process is methodical and ongoing—from needs and resources assessment to capacity building; from the selection of a single program or comprehensive approach, including multiple sectors of the community over several domains, to implementation; final evaluation; and, when called for, back to needs and resources assessment again.

At every point there are procedures for measurement and evaluation. All points in the process are linked to one another and linked conceptually to the underlying factors and conditions that prompted your concern in the first place. Whether you will be using an evaluator intermittently or as a full-time team member, a conceptual understanding of the process will help you become a more informed consumer of evaluation services. You will have better control of program direction, a more productive evaluation experience, and a better chance of achieving success.

Why is this theory-driven, evidence-based process so important? A theory-based process, as advocated in PATHWAYS, will help you figure out what is working and why. It will keep your focus on authentic goals and objectives, enabling you to select appropriate interventions that—when properly implemented, measured, and evaluated—will lead to behavioral change and, ultimately, substance abuse prevention and/or reduction.

PATHWAYS is a process that is especially appropriate for coalitions. In this publication, coalitions can refer in a generic sense to groups of people working together to accomplish a mutually acceptable goal as well as, in a more formalized sense, to a partnership of social, political, health, faith, education, law enforcement, and other relevant organizations, as well as community stakeholders,* working together to advance substance abuse prevention and reduction within a community or geographic area. The process can maximize a community's resources by committing community stakeholders to a mutually agreed-upon, comprehensive community-wide prevention plan. Programs implemented in isolation of the

*The Office of National Drug Control Policy requires applicants for the Drug-Free Communities Grant Program to have representatives from each of the following categories: youth, parents, businesses, the media, schools, organizations serving youth, law enforcement, religious or fraternal organizations, civic and volunteer groups, health care professionals, state, local, or tribal governmental agencies with expertise in the field of substance abuse (including, if applicable, the State authority with primary authority for substance abuse), and other organizations involved in reducing substance abuse. If feasible, each coalition should also have an elected official (or representative of an elected official) from the Federal government and the government of the appropriate State and political subdivision.

greater community's needs may result in outcomes for a specific segment of the population, but are not likely to affect overall community substance abuse rates. Moreover, practitioners engaged in a collaborative effort are well positioned to maximize scarce resources and eliminate duplication. Sharing expertise and resources across the many sectors of the community can affect the norms and behaviors of neighborhoods, families, and individuals. Properly documenting and evaluating the results, in turn, will lead the coalition to a more robust impact.

PATHWAYS guides you through a comprehensive planning process that enables you to accurately assess your community's prevention needs as well as current prevention efforts. You will learn the steps necessary to select, implement, and evaluate programs that mobilize the community, provide effective prevention education and alternative activities for high-risk youth, inform the community of vital prevention messages, and provide assessment and referral for intervention and treatment services. You will learn how to determine which domains and particular risk and protective factors should be of most concern to your community.

In short, PATHWAYS will help ensure that what you are doing leads to measurable change. And if positive results are NOT forthcoming, PATHWAYS will help you identify why and what steps need to be taken to get back on the right path: the path to prevention.

PATHWAYS is divided into five chapters:

- Determine Needs and Resources
- Build Capacity
- Select/Adapt/Innovate Programs
- Implement and Assess Programs
- Complete an Evaluation

As you move through the process, you will be able to anchor your work conceptually with logic models and document it with action plans. Doing so will help you maintain focus and direction, document outcomes (immediate, intermediate, and long-term), and make adjustments as needed.

Following the PATHWAYS process is complicated at first. There are procedures within the process—notably needs and resources assessment and the measurement of outcomes—that require specialized training and expertise. For that reason, you may want to seek expert guidance from a knowledgeable and dependable consultant with whom you can work collaboratively to solve problems and improve outcomes.

It is not the purpose of this process to turn you into an expert evaluator. Its purpose is to support you as an educated consumer, so that you can work confidently, comfortably, and credibly with anyone who can help you achieve and demonstrate your success. PATHWAYS is real help for real people.

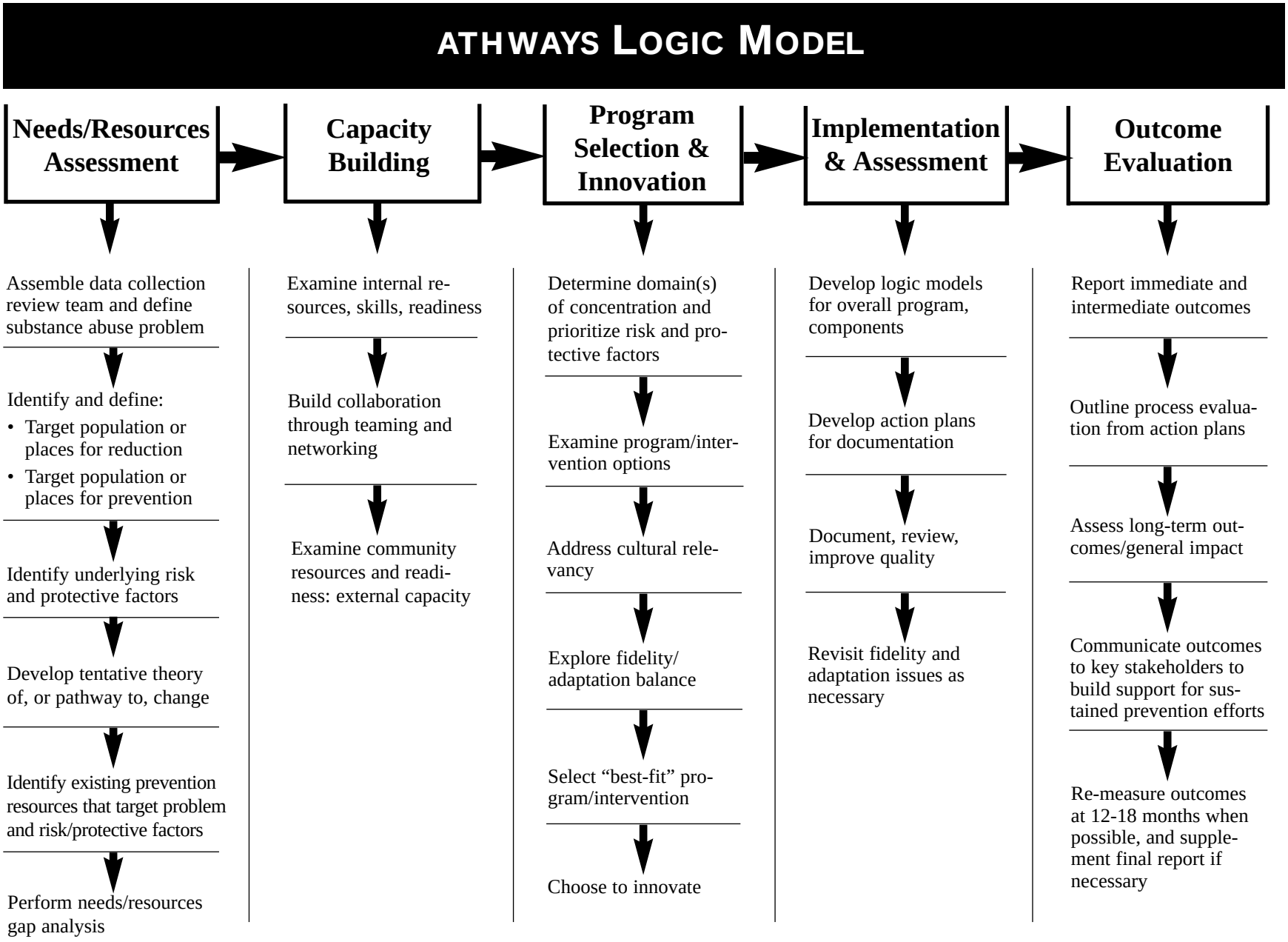
The lengthy development process for *Pathways to Effective Programs and Positive Outcomes*, which began in 1999 under another title, included an extensive review process that ultimately involved hundreds of experts and field practitioners, not only in the field of substance abuse prevention but in other disciplines as well. The purpose of this review process was to ensure that the Pathways process and this document not only reflects the latest thinking on evidence-based process and practices, but also is presented in a manner that is practical, concise, and practitioner-friendly. In that sense, it is truly a "community" document, a process that has been vetted through tens of dozens of practitioners, evaluators, educators, and experts in the field. Thus, it represents the best that collaboration has to offer and serves as a model for all whose work might be guided by a collaborative process.

A Program Logic Model for PATHWAYS

PATHWAYS is organized conceptually around a *logic model*, as depicted on the following page. The components of the model are the five chapters of this publication: (1) Determine Needs and Resources, (2) Build Capacity, (3) Select/Adapt/Innovate Programs, (4) Implement and Assess Programs, and (5) Complete an Evaluation. As you organize your work, you, too, will use logic models to keep the process orderly and help you implement all of the required steps. It is likely that you will find it useful to create a logic model and an action plan—roadmaps of the work you are about to do—and charts of how you are planning to do the work, including space to document what was actually done. Sometimes, especially if you are a coalition, your work will have numerous components (e.g., a program for youth, a parent program, community mobilization, a media campaign, etc.), and you may decide to develop a logic model for each of the components. You will learn more about logic models and the action plans that support them in chapter 4.

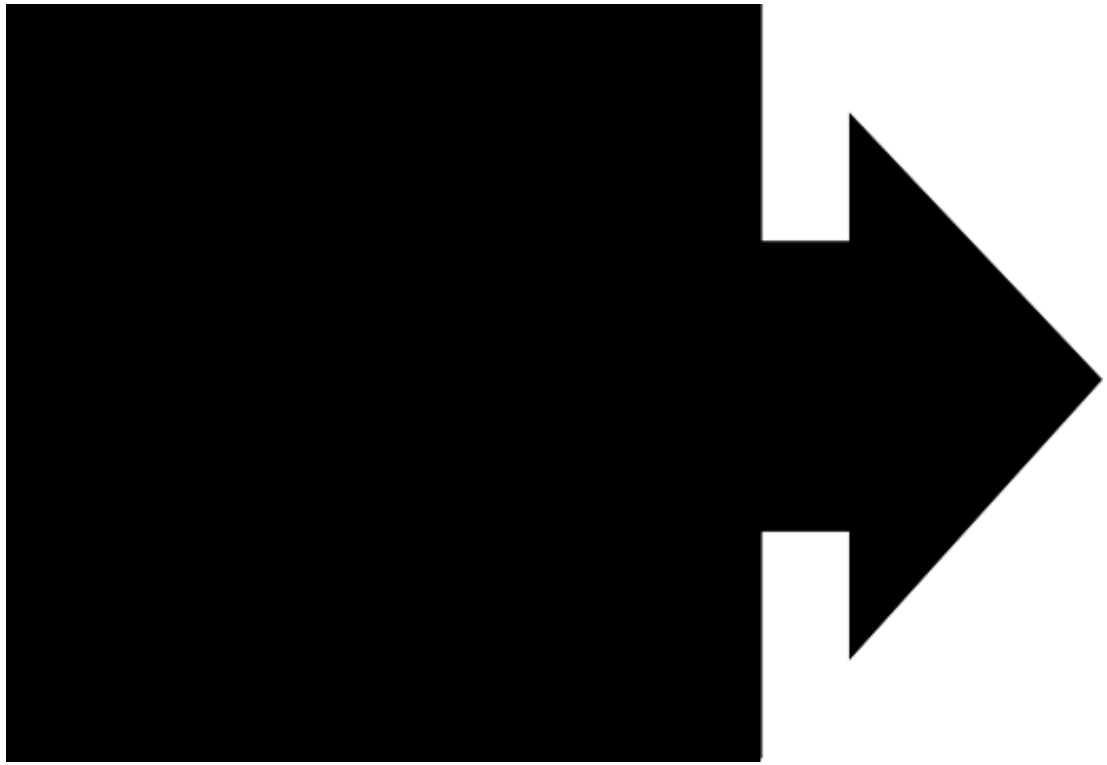
As a community prevention professional, you may be collaborating with other agency partners or serving as a partner in a coalition while also implementing direct prevention programs in one or more communities. In that case, a logic model captures the comprehensive prevention approach (multiple approaches across multiple domains) that will address your community's unique needs. Any given partner's logic model may fulfill one or more components of the community's overall prevention plan.

PATHWAYS Program Logic Model



Chapter 1

Determine Prevention Needs and Resources



Introduction

Why start with a formal assessment of prevention needs and resources in the community you serve when you may feel you already know what they are? Even if you and other substance abuse prevention practitioners and community specialists have a good understanding of the general substance abuse problem(s) in your community, a formal assessment is essential. You need to take an objective look at the full complement of community environmental, social, and individual risk and protective factors that are contributing to the problem, not just at the problem itself. This chapter will explain the importance of that assessment and how to go about it.

You will play a key role in developing this needs assessment, along with other team members and, if need be, an evaluator. These types of assessments may be new to you or broader in scope than those you have previously undertaken. The PATHWAYS process will assist you by providing practical information for identifying your "target" population(s) or environmental condition(s) and the *underlying factors* that create vulnerability to substance abuse and/or build upon the protective factors that mitigate the negative effects of risk.

It is very likely that your needs assessment will identify more than one target population that is at risk or already involved in substance abuse. Nonetheless, identifying the specific substance abuse problem(s) and specific at-risk populations will enable you and your partners to choose appropriate *programs**. Changing the pattern of risk and protection across an entire community will involve a number of programs, as it is highly unlikely that any one single program (or campaign or environmental approach) will address all of the substance abuse risk factors, or actual use rates, in a given community. Multiple approaches over multiple domains, effective programs, and systematic evaluations are key to achieving positive prevention/reduction *outcomes*.

Perhaps a specific population—or even a program —has been pre-determined for you or for one or more of your partners. This population may or may not reflect the population you (or your partner) would logically select from comprehensive needs and resources assessment, but it will be the one that the funder or host (e.g.,

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Needs and Resources Assessment

- Defines the nature and extent of substance abuse problems
- Identifies populations and/or neighborhoods statistically associated with the problem
- Identifies the underlying risk and protective factors of the identified population/group/ neighborhood
- Leads to a plausible theory (or theories) of change that, matched to the appropriate program(s), should reduce or prevent substance abuse

Federal agency, granting authority, school district) is most interested in serving. Reading this chapter will familiarize you with the needs and resources assessment process, either to identify the risk and protective factors for a population you have identified, or one that has been pre-determined for you, and to prepare for additional funding opportunities. This knowledge is important even if you have been given a program, as the program may need to be adapted to fit your population's specific risk and protective factors.

Finally, this chapter will outline how you can develop a *theory of change* or, possibly, several related theories of change that will anchor your implementation process to achievable outcomes and inform your selection of appropriate program(s), if that selection is yours to make. If you are not quite comfortable with the term "theory of change," it may help to think of it as a *pathway to change*. The important point is that the terms mean the same thing. Your *logic model*, which graphically depicts your theory of change, will guide you as you document your progress.

If you have been given or assigned a program, you may also have been given the program's theory of change (especially if it is a SAMHSA-designated model, effective, or promising program). Whether you have developed the theory, or been given the theory by a developer, it is important that you understand it. The logic model depicting the theory should help you pinpoint the specific outcomes that will lead you and your community to success and identify where an adaptation may be required in order to meet needs not yet identified.

Important Terms

Age of Onset: In substance abuse prevention, the age of first use.

Anecdotal Evidence: Information derived from a subjective report, observation, or example that may or may not be reliable, but cannot be considered scientifically valid or representative of a larger group or conditions in another location.

Archival Data: Relative to the collection of data for needs assessment purposes, information that is collected from existing records and maintained in some form.

Baseline Data: The initial information collected prior to the implementation of an intervention, against which outcomes can be compared at strategic points during, and at completion of, an intervention.

Coalition: A partnership of social, political, health, faith, education, law enforcement, and other relevant organizations, as well as community stakeholders, working together to advance substance abuse prevention and reduction within a community or geographic area. In a more generic sense, coalitions can refer to groups of people working together to accomplish a mutually acceptable goal

SAMHSA's Core Measures: As used in SAMHSA terminology, a compendium of data collection instruments that measure underlying conditions—risks, protective factors, attitudes, and behaviors of different populations—related to the prevention and/or reduction of substance abuse.

Domain: Sphere of activity or affiliation within which people live, work, and socialize (e.g., individual/peer, family, school, community).

Goal: The clearly stated, specific, measurable outcome(s) or change(s) that can be reasonably expected at the conclusion of a methodically selected intervention.

Incidence: A measure of the number of people (often in an identified population) who have initiated a behavior—in this case, drug, alcohol, or tobacco use—during a specific period of time.

Indicator: A substitute measure for a concept that is not directly observable or measurable (e.g., prejudice, substance abuse).

OUTCOMES:

The extent of change in targeted attitudes, values, behaviors, or conditions between baseline measurement and subsequent points of measurement. Depending on the nature of the intervention and the theory of, or pathway to, change guiding it, changes can be immediate, intermediate, and long-term outcomes.

PROGRAM:

As used throughout this publication, the term "program" refers to the sum total of organized, structured interventions, including environmental initiatives, that is designed to change social, physical, fiscal, or policy conditions within a definable geographic area or for a defined population.

Logic Model: A graphic depiction of the theory of (or pathway to) change that provides the underlying rationale for a program. It includes the approaches and activities that specifically address underlying needs and protective factors and specifies the expected immediate and intermediate outcomes, or objectives, and the expected long-term outcomes, or goals.

Objectives: As used in this publication, measurable statements of the expected change in risk and protective factors, or other underlying conditions as expressed in the program's guiding theory of, or pathway to, change.

Outcomes: The extent of change in targeted attitudes, values, behaviors, or conditions between baseline measurement and subsequent points of measurement. Depending on the nature of the intervention and the theory of, or pathway to, change guiding it, changes can be immediate, intermediate, and long-term outcomes.

Pathway to Change: See Theory of Change.

Prevalence: Rates/numbers of people using or abusing substances during a specified period, usually one year.

Program: As used throughout this publication, the term "program" refers to the sum total of organized, structured interventions, including environmental initiatives, designed to change social, physical, fiscal, or policy conditions within a definable geographic area or for a defined population.

Protective Factors: Conditions that build bonding to prosocial values and institutions and can serve to buffer the negative effects of risks.

Proxy Measures: In this publication, data that can be used as an indicator—an indirect measure of substance use or abuse. In general, multiple indirect measures (proxies) are more reliable than a single proxy.

Resources: Social, fiscal, recreational, and other community support that presently target substance abuse prevention and/or reduction.

Risk Factors: Conditions for a group, individual, or identified geographic area that increase the likelihood of a substance use/abuse problem.

Social Indicator: A measure of a social issue that has been tracked over time (e.g., family and community income, educational attainment, health status, community recreation facilities, per pupil expenditures, etc.) and can be used as a proxy measure.

Stakeholders: As used in this publication, all members of the community who have a vested interest (a stake) in

the activities or outcomes of a substance abuse program.

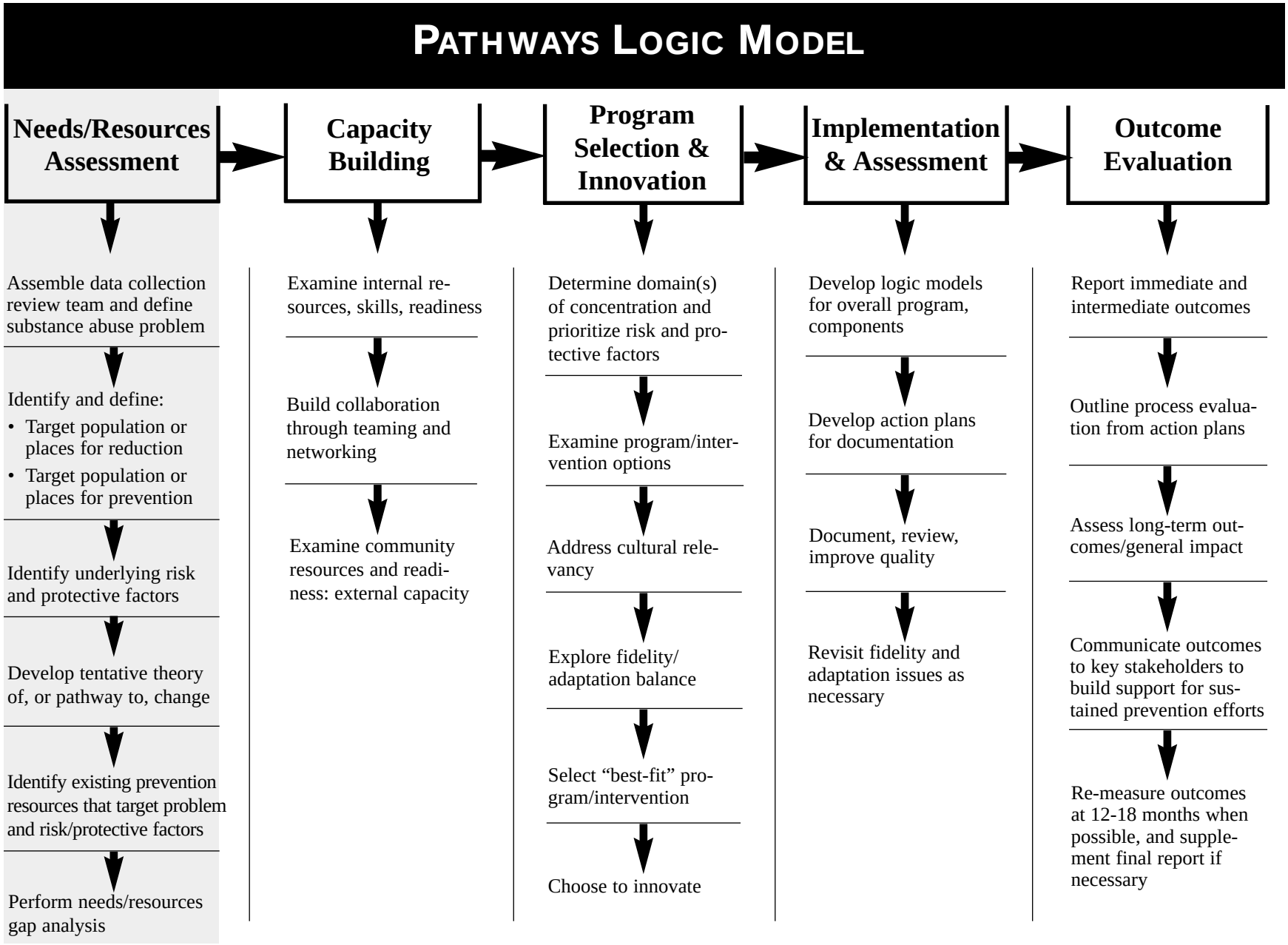
Survey Data: Information collected from specially designed instruments that provide data about the feelings, attitudes, and/or behaviors, usually of individuals.

Target Population: In this publication, the people whose attitudes, knowledge, skills, risk/protective factors, and behaviors are to be strengthened or changed. Also known in the field as the target group, the population of interest, or intended audience.

Theory of Change: As used in this publication, a set of related assumptions (also called hypotheses) about how and why desired change is most likely to occur as a result of a program. Typically, the theory of change is based on past research or existing theories of human behavior and development. Alternatively, a theory of change can be described as a pathway to change that systematically links actions to expectations or intended results.

Underlying Factors: Behaviors, attitudes, conditions, or events that cause, influence, or predispose an individual to resist or become involved in problem behavior, in this case, substance abuse. See *Risk Factors* and *Protective Factors*.

PATHWAYS Program Logic Model



Logic Model Discussion for Needs and Resources Assessment

Take another look at the overall program logic model for PATHWAYS, which is reproduced on the previous page. The shaded area shows how chapter 1, Determine Needs and Resources, fits into the overall process. The activities and tasks that make up the needs and resources assessment component of the PATHWAYS process are described below and on page 10. You will find more information about logic models and their role in chapter 4.

Determine Needs and Resources Action Steps

- **Assemble Data Collection Review Team and Define Substance Abuse Problem**
  - — Obtain baseline measures of substance abuse prevalence for groups or general population within geographic area of interest
  - — Obtain baseline measures of incidence (new cases)

- **Identify and Define Target Population/Places**
  - — To reduce use/abuse: Use successive layers of prevalence data (annual or 30-day use) to identify "who/what/where" is contributing most to the measures and indicators of use/abuse
  - — To delay (prevent) onset: Use incidence and prevalence data for common age of onset

  For pre-determined population:
  - — To reduce use/abuse: Obtain measures of prevalence within pre-determined population
  - — To delay onset:
    - Obtain measures of incidence within community corresponding to pre-determined population
    - Obtain measures of prevalence within pre-determined population to identify those already using

- **Identify Underlying Risk and Protective Factors**
  - — Establish assessment teams comprised of key stakeholders with access to, and understanding of, assessment data already available
  - — Use a variety of assessment data, including SAMHSA's core measures, community indicator data, and information from key stakeholders
  - — Analyze data to:
    - Set priorities for program selection, and
    - Select most appropriate baseline measures

- **Develop Tentative Theory of, or Pathway to, Change**
  - Review program and appropriate research literature
  - Ground initial theory of, or pathway to, change in research literature and assessment data

- **Identify Existing Prevention Resources that Target Problem and Risk/Protective Factors**
  - Conduct a resources assessment to determine which programs are currently available, who is offering them, and their quality
  - Consider how existing programs can be integrated into your prevention plan

- **Perform Needs/Resources Gap Analysis**
  - Evaluate existing resources for their fit with identified risk and protective factors
  - Understand that existing programs may still reflect service gaps

Conducting the Needs and Resources Assessment

The Importance of Needs and Resources Assessment to Achieving Positive Outcomes

A needs and resources assessment can identify the unique vulnerabilities and strengths that affect the substance abuse problem(s) in your community. You may have *anecdotal evidence* and perceptions about the overall nature of the substance abuse problem. However, until you gather data that show precisely what is happening, where it is happening, to whom, and why, your perceptions and anecdotal evidence may be only one piece of the reality. Since the needs and resources assessment can be time consuming and involves participation and collaboration with a number of local agencies, you may find the process much less cumbersome if you assemble a team to help collect data. Members of the team should include representatives of the agencies from which you will be collecting data, such as law enforcement, hospitals, and schools. *Coalitions* should have representatives from each of these agencies (see list on page viii of the Foreward of community representatives that the Office of National Drug Control Policy requires for applicants for the Drug Free Communities Grant Program) as part of the coalition member base and should readily call on them to assist in the data collection effort.

A needs and resources assessment has three primary goals: (1) understanding the nature and extent of the general substance abuse problem(s), (2) identifying the risk and protective factors that underlie the problem(s), and (3) documenting the existing resources that address the problem(s). Your ability to bring about positive change depends on your accurate understanding of the *underlying factors* that increase and decrease the risk for substance abuse among individuals. Neighborhoods and communities have risk as well. Abandoned property, poorly maintained parks, and empty stores on declining commercial strips are invitations to substance traffickers.

Substance use/abuse prevention programs (which, in this publication, refers to the sum total of organized, structured interventions, including environmental initiatives, that is designed to change social, physical, fiscal, or policy conditions within a definable geographic area or for a defined population) have changed in recent years. Earlier programs focused almost exclusively on reducing *risk factors*; very few sought to enhance *protective factors*. (See figure 1.1 Examples of Risk and Protective Factors by Domain.) Today, programs also focus on identifying and developing protective factors that create and build bonding and can serve as a buffer against the negative effects of risk ("2002 annual report of science-based prevention programs and principles," SAMHSA's CSAP, 2002).

As you can see from the simplified chart, these risk and protective factors interact with each other within four *domains*:

- Individual/Peer
- Family
- School
- Community

These domains provide a framework for the evolving list of risk and protective factors that research indicates prevention programs should target. Coalitions address all of these domains through the "multiple approaches over multiple domains" philosophy that defines their work.

For a comprehensive picture of your community's substance abuse problem, keep in mind that:

1. ***Needs assessment*** can help pinpoint where or for whom prevention and/or reduction efforts will be most productive and identify the underlying risk factors that contribute to the vulnerability of the individual, group, or place of focus; and
2. ***Resources assessment*** focuses on community programming, funding, and other supports in each domain presently targeting substance abuse prevention and/or reduction.

The needs and resources assessment process discloses and quantifies the substance abuse problem in your community and your community's present response. These are many of your *baseline measures*, the initial information collected prior to an intervention. These particular baseline measures will help you formulate

Figure 1.1 Examples of Risk and Protective Factors by Domain

Domain	Risk Factors	Protective Factors
Individual/Peer	• Early and persistent antisocial behavior • Friends who engage in the problem behavior • Favorable attitudes about the problem behavior • Early initiation of the problem behavior • Negative relationships with adults • Risk-taking propensity/impulsivity • Association with delinquent peers who use or value dangerous substances • Association with peers who reject mainstream activities and pursuits • Susceptibility to negative peer pressure • Easily influenced by peers	• Opportunities for prosocial involvement • Rewards/recognition for prosocial involvement • Healthy beliefs and clear standards for behavior • Positive sense of self • Negative attitudes about drugs • Positive relationships with adults • Association with peers who are involved in school, recreation, service, religion, or other organized activities • Resistance to peer pressure, especially negative • Not easily influenced by peers
Family	• Family history of high-risk behavior • Family management problems • Family conflict • Parental attitudes and involvement in the problem behavior	• Bonding (positive attachments) • Healthy beliefs and clear standards for behavior • High parental expectations • A sense of basic trust • Positive family dynamics
School	• Early and persistent antisocial behavior • Academic failure beginning in elementary school • Low commitment to school	• Opportunities for prosocial involvement • Rewards/recognition for prosocial involvement • Healthy beliefs and clear standards for behavior • Caring and support from teachers and staff • Positive instructional climate
Community	• Availability of drugs • Community laws, norms favorable toward drug use • Extreme economic and social deprivation • Transition and mobility • Low neighborhood attachment and community disorganization • Unemployment and underemployment • Discrimination • Pro-drug-use messages in the media	• Opportunities for participation as active members of the community • Decreasing substance accessibility • Cultural norms that set high expectations for youth • Social networks and support systems within the community • Media literacy (resistance to pro-use messages) • Increased pricing through taxation • Raised purchasing age and enforcement • Stricter driving-under-the-influence laws

Adapted from Brounstein, Zweig, and Gardner (1998). *Science-based practices in substance abuse prevention: A guide* and CSAP. *2002 annual report of science-based prevention programs and principles.*

"Drug abuse prevention often involves intervening early to promote healthy development in children and adolescents when the distinction between youths who will subsequently become drug abusers and those who will abstain is unknown. Because many of the young people targeted by prevention services have not yet started to use drugs, the level of need for prevention services cannot be determined simply by counting the number of substance users within the population. Instead, assessing the need for prevention services requires methods for assessing the probability of future drug use within populations that are not currently using substances, and assessing the resources available to reduce the probability."

From Arthur and Blitz, 2000

a goal statement—the measurable change(s) that can be expected at the conclusion of your program. As you delve deeper, you will discover the risk and protective factors that will help you formulate your measurable objectives.

Most needs assessments begin with measures of the *incidence* and *prevalence* of substance abuse. (How and where to find data for these two measures will be explained later in this chapter.) These give you a general understanding of your community's drug problem. Incidence measures the number of people (often in a *target population*) who initiated alcohol, tobacco, or illicit drug use during the specified time period. Its special value to prevention practitioners is that when comparable data is available over time, it can be used to approximate age of first use, also called *age of onset*. This information is helpful for those who wish to focus their interventions on a group that has not yet begun to experiment with drugs (e.g., primary prevention of substance use/abuse).

Prevalence measures the rate or total number of drug users in a group within a specified time period, regardless of when use was initiated. (Sometimes prevalence also measures frequency or level of use.) These data provide the standard for determining current drug use. Prevalence and incidence may reveal the general substance abuse issues, but do not usually give you enough direction about who and what are contributing to the problem.

For example, early age of onset of alcohol and drug experimentation among youth might appear to be a problem in your community. Once you verify that it is a problem, you still need to determine who and what are contributing to this problem. Examining only the prevalence of a particular problem (e.g., the number of youth currently using substances), will not help you decide what you can do to reduce and/or prevent the problem. If, on the other hand, you can determine which groups are most appropriate for prevention programs, and which are most appropriate for reduction programs, you will have made a good start. If you can then isolate which risk and protective factors best characterize your identified population(s), you can identify and implement programs to reduce those risks and build protection, thus preventing and/or reducing the problem behavior.

There are, indeed, circumstances in which a population has been identified or chosen for you, or is so obvious that a systematic search may be unnecessary. Many of the risk and protective factors may be known and generally acknowledged to be shared by the group as a whole. However, "knowing" these

factors does not negate the value of a formal needs assessment, especially because drug use is not uniform among groups who share common risk factors.

There are several reasons. First, the assessment will help identify the collateral needs of families and neighborhoods that will be useful to other coalition members. Second, while many of the general social and economic conditions contributing to substance use/abuse appear to be clear, the underlying factors, such as the risk and protective factors identified in Figure 1.1, for your defined population may still be unique and should be identified. Third, the needs assessment may provide the justification and guidance for adapting a program you are considering. For example, certain programs assume a skill level in participants. You may find that participants are missing some of the skills the program takes for granted, and you will have to adapt your approach. Finally, solid needs assessment data from your population is helpful if your outcomes from a replicated program fall short of expectations despite fidelity to the developer's design, as you will see in chapters 3 and 4.

Define the General Problem and Then Conduct a Multilayered Assessment

Much like peeling away the many layers of an onion to reach the core, successive levels of information about your community's substance abuse problem can be peeled away until you reach the core issues and underlying conditions. The actual process, as well as its importance to your success, is the same if you are an individual service provider, a partner in a coalition, one of several in a group of providers, or the lead agency for a coalition. For example, if you are an individual service provider, you may determine, as you examine your data, that substance use among young people in your community begins to spike in the seventh grade. This gives you important information about age of onset. When the next layer is peeled, you might then determine that this spike is more pronounced among young males in a particular school, neighborhood, or group.

You might also determine from key *stakeholders* (members of the community who have a vested interest in the activities or outcomes of a program, such as police or court officials who hope to see crime rates decrease, or real estate agents concerned about property values and vacancy rates, or business leaders interested in higher skill levels and reduced drug use among the workforce) that arrest rates for drug sales and possession are high in your community, indicating that availability of drugs is high. From still others (e.g., school guidance counselors), you might determine that truancy and academic failure rates are much higher among your group of youth than the average rates for comparable communities, or in the state as a whole. Guided by these clues, you can peel the next layer, looking more closely at individual data to identify and examine factors that make this population vulnerable to substance abuse.

It is important that you continue to peel away the layers of information until you reach the critical core. It is the critical core information that will allow you to identify the underlying risk and protective factors specific to your identified population or area of interest. This often includes data on individuals and may involve confidentiality issues. However, it is not unusual for community stakeholders to share individual-level needs assessment data for an identified population as a group, while withholding individual names.

Individual level data can also be gathered using SAMHSA's recommended *core measures*. This compendium of data collection instruments can provide practitioners with a means of identifying and measuring the individual risk/protective factors, attitudes, and behaviors within a group. While many of the core measures can be administered by practitioners without expert assistance, the administration and analysis of some of these instruments may require specialized help.

Your chances of getting down to the true core of data you need may increase if you work closely with partners. Collaborators can facilitate your access to critical data, help obtain data from particular sources, and help interpret the data you already have.

For example, perhaps you have only county-level data, but you want to know how the data breaks down by school. School officials may be reluctant to provide the data. However, if PTA officials make the request and provide legal and confidentiality assurances, school officials may agree to cooperate. And if a school official is an active member of your coalition, access to data not otherwise shared may be greatly enhanced.

Likewise, you may want to know how the data breaks down by neighborhood. A community planner may have access to this information by ZIP code, and a community leader from the area may be able to enhance your understanding of a particular population. If you can peel the layers down to the block level, you will be maximizing your potential for effectiveness, and the planner and community leaders may be more inclined to share data and expertise if they are official participants in a community coalition.

As an individual practitioner or as a coalition you will need to "peel the layers" within your geographic area of responsibility to help focus your organization or partners on where each can make a measurable difference and to ensure that each is contributing outcomes that, in turn, will contribute to measurable success.

Figure 1.2 reflects actual county needs assessment data obtained from a recent state needs assessment.. Incidence includes information about the number of people who have initiated a behavior—in this case, drug, alcohol, or tobacco use—during a specific period of time.. This information is often collect by student surveys; many such surveys are available free of charge from SAMHSA/CSAP. Thirty-day use (prevalence) more closely reflects the population of regular users. Note the increases between middle and high school. Note also the gender differences. Analysis of these charts would suggest that cigarette,

Figure 1.2 Sample State and County Needs Assessment Data Tool

Lifetime Use by Grade	County X			State			Ratio
Drug	**Middle 10-14**	**High 15-17**	**Total**	**Middle 10-14**	**High 15-17**	**Total**	**Incidence: County/State**
Alcohol	39.60	66.10	52.20	38.60	68.90	52.60	.99
Cigarettes	31.20	56.50	43.20	28.90	52.30	39.70	1.08
Inhalants	13.80	12.00	12.90	12.90	10.60	11.80	1.09
Marijuana	12.30	43.20	27.00	10.00	36.60	22.30	1.21
Cocaine	2.30	6.90	4.50	1.90	6.50	4.00	1.13

Lifetime Use by Gender	County X			State			County/State Ratio	
Drug	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**
Alcohol	52.20	51.60	51.90	52.80	52.40	52.60	0.98	0.98
Cigarettes	45.10	41.60	43.40	39.40	39.80	39.70	1.14	1.04
Inhalants	14.00	12.40	13.20	12.40	11.30	11.80	1.13	1.09
Marijuana	30.80	23.40	27.10	24.60	20.20	22.30	1.25	1.16
Cocaine	5.50	3.40	4.50	4.40	3.80	4.00	1.14	0.89

30-day Use by Grade	County X			State			Transition to High School	
Drug	**Middle 10-14**	**High 15-17**	**Total**	**Middle 10-14**	**High 15-17**	**Total**	**County X**	**State**
Alcohol	21.10	40.60	30.40	20.40	43.40	31.00	1.92	2.13
Cigarettes	13.10	26.20	19.30	9.80	21.70	15.30	2.00	2.21
Inhalants	6.90	3.60	5.30	5.70	3.20	4.60	.52	.56
Marijuana	6.90	22.40	14.30	5.10	18.30	11.20	3.24	3.59
Cocaine	1.20	2.50	1.80	.08	2.00	1.40	1.67	.25

30-day Use by Gender	County X			State			County/State Ratio	
Drug	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**
Alcohol	33.00	28.40	30.40	31.20	30.70	31.00	1.06	.93
Cigarettes	21.60	17.40	19.30	15.20	15.30	15.30	1.20	1.14
Inhalants	04.90	05.80	5.30	4.80	4.30	4.60	.11	1.16
Marijuana	19.40	10.00	14.30	13.00	9.60	11.20	1.49	1.04
Cocaine	03.00	.09	1.80	1.60	1.20	1.40	1.88	.08

From Florida Department of Children and Families, 2000.

Data Interpretation

1. Alcohol and cigarette use begins early, but cigarette use continues to surpass the statewide averages through high school.

2. Marijuana use also begins early, escalates in high school, and is above the state average.

3. Early initiation of marijuana and inhalants is higher in County X than in the state and continues throughout high school.

4. Alcohol, cigarette, marijuana, inhalants, and cocaine use all begin early in County X.

5. Cigarette, marijuana, inhalants and cocaine use continue throughout high school, with use by both males and females exceeding state averages.

marijuana, inhalants, and cocaine use, beginning in middle school and accelerating in high school, are problems for County X. While this is more the case for boys than for girls, the prevalence for girls is also higher than the state average, with the exception of female cocaine use. Cocaine use is comparatively high for males, but the actual numbers are so small that addressing that issue may not be the best use of resources, if limited.

This example demonstrates how you can begin to define your population of interest (if the population was not pre-selected for you). Such charts and surveys can be difficult and confusing to analyze, and you should feel comfortable about seeking help if necessary.

Assessment tools such as this example can help identify the general substance abuse problem. But if you are operating at a local level, you will need to peel back more layers. The identification of early use of cigarettes, marijuana, inhalants, and, to a lesser extent, cocaine by middle and high school boys does not yet identify your target population within your community or, for that matter, within any single community within County X. Where are these students? Where do they live? What schools do they attend? This is the kind of necessary, detailed information that may not be available from *survey data* and that you may have to obtain, instead, from key stakeholders using structured interviews and focus groups.

Identify and Define a Population and/or Geographic Area

Your ability to bring about positive change depends on the extent to which you can accurately connect people and places with interventions. For example, if your mandate or goal is to *reduce* substance abuse, you want to identify the precise group that is contributing most to the high numbers. Your programs should be targeted to that group. Otherwise your chance of actually reducing substance abuse in a specific community is compromised.

Once you have specified the population of interest, you can identify the risk and protective factors of the individuals who make up this population. You can then select programs that address their specific needs. (See chapters 3 and 4 for information on program selection and implementation.)

If, on the other hand, your mandate is to *prevent* substance abuse, you may want to identify the most common age of onset of substance abuse and focus your programmatic efforts on the age group directly below this age of onset. See case example B below.

As previously mentioned, it is not uncommon for an identified population to be pre-determined for a prevention program or coalition. This is the population you will need to serve to meet the requirements of your funder and/or local political environment. As the examples below illustrate, whether you select a population, or it is selected for you, your *goals* and *objectives* will relate to what can be accomplished within this identified population (reduction or prevention).

Example A: "REDUCTION in Substance Use and Abuse"

A county survey helped to identify marijuana use among youth in a small Midwestern town as a prevalent problem. Further assessment included local hospital and sheriff's data and key stakeholder interviews with the mayor and council and assistant middle and high school principals. This assessment identified a core group of adolescent boys at three middle schools as those primarily involved in this behavior. Additional assessment undertaken by school guidance staff revealed that these boys shared a range of risk factors: poor school performance, dysfunctional family life, and negative peer influences.

In response to these conditions, local prevention planners chose ***"reducing marijuana use and related behaviors among middle school children"*** *as a goal for a new project in their community. To succeed, the population responsible for the substance abuse (in this case, the core group of adolescent boys at three middle schools) would need to be specifically addressed. Successful outcomes would be achieved by selecting a program(s) that effectively address(ed) the underlying factors (e.g., poor school performance, dysfunctional family life, negative peer influences) that the school guidance counselors identified as characteristic of these boys' lives. Thus, planners tailored the objectives to meet the new project's goal by addressing the underlying factors (poor school performance, dysfunctional family life, etc.).*

Often prevention practitioners select "reduction of substance abuse" as a goal, but then fail to define the population responsible for the high rate of substance use, seriously jeopardizing goal attainment. Take care that you are not pressured to select outcomes that are incompatible with your needs assessment data (perhaps because you have been advised that grants are available for specific outcomes). Only after you have identified your population and assessed needs and resources can you look at funding streams and decide which are appropriate for your goals.

Example B: "PREVENTION of Substance Use and Abuse"

A needs assessment from a rural, largely Hispanic county revealed that the school dropout rate hovered around 40 percent. Many of the dropouts hung out near certain "hot spots" on the commercial strips. A local partnership, determined to make a difference, worked with a nearby college to develop a needs assessment plan that would allow the partnership to address two problems of acute concern: high rates of alcoholism, observable as well as corroborated by county health data, and school dropout rates 2.5 times the state norm.

A comprehensive needs assessment that began with the dropouts themselves revealed that many of the dropouts shared a risk factor of early initiation of alcohol use (typically at age 10). The families of these youth also complained of bicultural stress: that is, stress associated with living

in a culture different from their own. Further assessment revealed that many of these youth had younger siblings who were not yet using alcohol, but who were at high risk of doing so if family patterns persisted.

With much discussion and a review of needs assessment data, it was determined that there was a need to focus on the younger siblings.

Identify Underlying Risk and Protective Factors for Your Identified Population

The *archival data* you collect, which may be similar to that shown in figures 1.3 and 1.4, can provide guidance on where to begin your search for the risk and protective factors that are particular to your target population. Remember, however, that county-level, or even community-level, data may or may not be characteristic of this target population (assuming that county-level data is available). The further removed the data from your specific population, the greater the risk of a mismatch between your population or defined area and the selected program. The section on data collection in the second half of this chapter provides information on how to use different types of data to identify risk and protective factors for your identified population.

Figure 1.3 Example of a County Protective Factors Assessment

Domains	Protective Factors	County X	Like County	State
Community/Society	Community Rewards for Prosocial Involvement	47	47	48
Family	Family Attachment	51	52	51
	Family Opportunities for Prosocial Involvement	53	52	53
	Family Rewards for Prosocial Involvement	52	52	52
School	Opportunities for Prosocial Involvement	49	49	50
	Rewards for Prosocial Involvement	43	46	45
Individual/Peer	Religiosity	52	49	48
	Social Skills	54	53	53
	Belief in the Moral Order	53	55	53

From Florida Department of Children and Families, 2000.

Figure 1.4 Example of a County Risk Factor Assessment

Domains	Risk Factors	County X	Like County	State
Community/Society	Low Neighborhood Attachment	56	56	56
	Community Disorganization	49	51	53
	Personal Transitions and Mobility	60	60	59
	Community Transitions and Mobility	55	53	52
	Laws and Norms	45	44	43
	Perceived Availability	44	44	42
Family	Poor Family Supervision	52	50	50
	Poor Family Discipline	57	52	53
	Family History of Antisocial Behavior	48	50	47
	Parental Attitudes Favorable to Drug Use	46	47	46
	Parental Attitudes Favorable to Antisocial Behavior	47	48	48
School	Academic Failure	59	59	60
	Low School Commitment	54	52	51
Individual/Peer	Perceived Risks of Drug Use	38	40	39
	Early Initiation	52	49	49
	Impulsiveness	53	54	53
	Sensation Seeking	50	49	48
	Rebelliousness	44	43	43
	Friends' Delinquent Behavior	56	54	55
	Friends' Use of Drugs	50	49	47
	Peer Rewards for Antisocial Behavior	46	43	41
	Favorable Attitudes Toward Antisocial Behavior	40	37	37
	Favorable Attitudes Toward Drug Use	47	47	46

From Florida Department of Children and Families, 2000.

Develop a Tentative Theory of, or Pathway to, Change Grounded in Research Literature and Needs Assessment Data

The preceding examples show how needs assessment data can be used to inform decisions about how and to whom to address prevention and reduction efforts. The linkages you make between the information from your needs and resources assessment and your identified population will enable you to develop your *theory of change*, which enables you to identify meaningful, measurable goals and objectives.

Goals are simply a clear and measurable statement of the results to be achieved—the final, measurable outcomes of a prevention program. The statement draws on the needs assessment data that describes and provides measures of the general substance abuse problem(s) you wish to change. Goals should be achievable within the timeframe of the intervention. Reducing substance abuse for 15 percent of the high school youth identified as "users" in your community is an achievable goal; eliminating substance abuse altogether may not be. A community coalition might set a goal to significantly decrease the use of alcohol and drugs among 90 percent of the teens between the ages of 14 and 18 who are using alcohol and drugs, whereas a single service agency goal might be more limited in scope: to eliminate the use of tobacco products among the middle school youth who use tobacco products and who participate in one of three community boys and girls clubs.

A goal is comprised of a number of objectives. *Objectives* are the stepping stones to goal achievement. They are statements of the change(s) that you expect to occur in relation to the baseline measures of your identified population's risk and protective factors. This change is brought about by the particular components in your prevention program that address those particular risk and protective factors.

Your goal is another way of stating your long-term outcomes, and your objectives are another way of stating the changes you expect to occur after each program component has been completed, if you are a single program, and the changes you expect from each of your partners if you are documenting the outcomes from a coalition. Objectives are also known as immediate and intermediate outcomes. Collectively, goals and objectives specify and describe the changes you hope to accomplish through your prevention efforts. Upon completion of the analysis of your needs and resources data, you next formulate a set of assumptions (often referred to as hypotheses) about how and why desired changes are most likely to occur as a result

A **GOAL** is the long-term change in your baseline measure of the general substance abuse problem and the measure of that same problem when your program is completed.

OBJECTIVES are the immediate and intermediate outcomes you expect in the baseline measures of the risk and protective factors of your identified population after completion of the component that deals with those risk and protective factors.

The **THEORY OF CHANGE** is all of the expected changes expressed in your objectives that lead to your goal. Alternatively, the theory of change can be described as a pathway to change.

of your effort. A review of the pertinent literature will help you articulate these assumptions. This important step is known as developing your theory, or theories, of change.

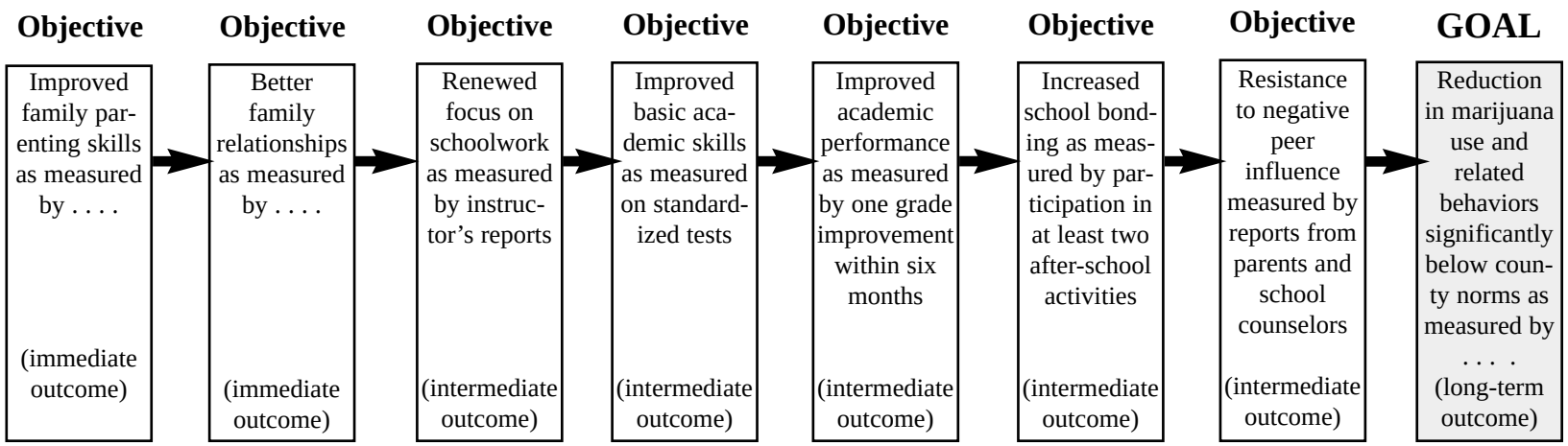
Developing your theory of change is an instrumental part of establishing your goals (long-term outcomes) and your objectives (immediate and intermediate outcomes). Later chapters will provide more detailed information to assist you in understanding the theory of, or pathway to, change as part of building a *logic model* for your program.

For instance, in the previous Example A, "Reduction in Substance Use and Abuse," the goal or final outcome desired by the community is to "reduce marijuana use and related behaviors among middle school children." The objectives, which reflect the identified risk and protective factors, might be to improve school performance for the identified population, bolster family relationships and parenting skills, and reduce the impact of negative peer influences.

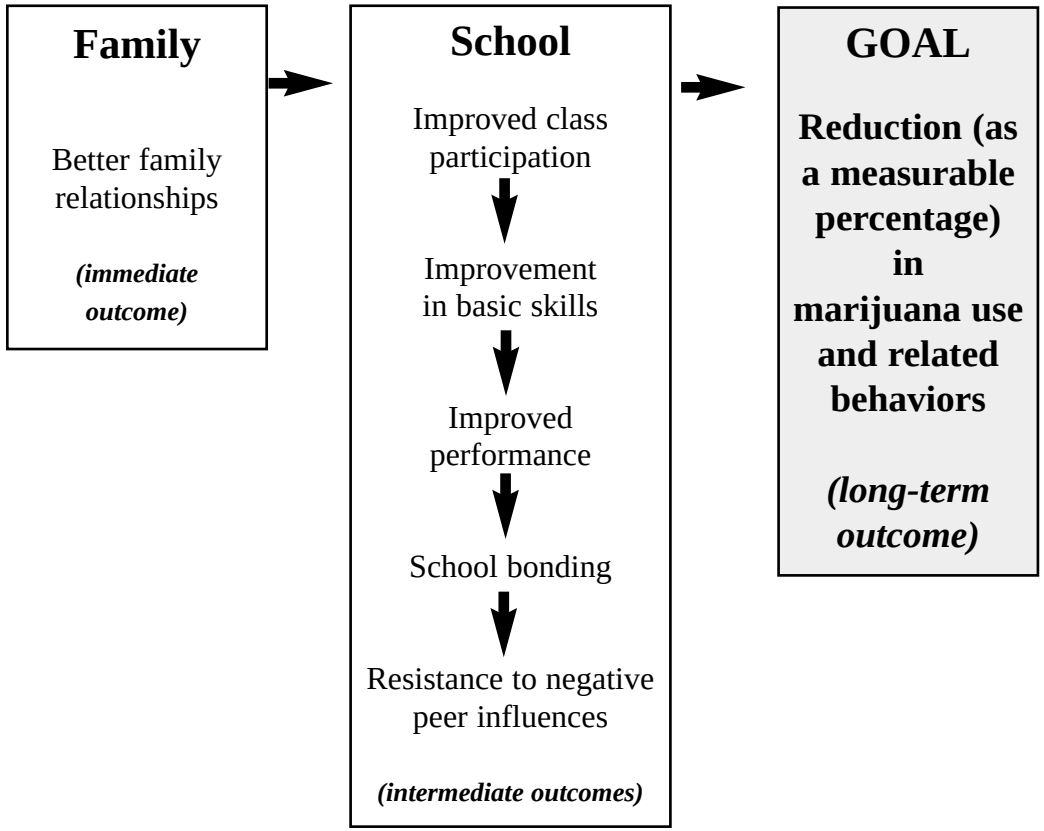
After reviewing the research literature relevant to this issue and population, your theory of, or pathway to, change to achieve the goal for this example might be stated in this way:

- **Improved family parenting skills (immediate outcome) lead to**
- **Better family relationships (immediate outcome), which lead to**
- **Renewed focus on schoolwork (intermediate outcome), which leads to**
- **Improved basic academic skills (intermediate outcome), which lead to**
- **Improved academic performance (intermediate outcome), which leads to**
- **Increased school bonding (intermediate outcome), which reduces**
- **The impact of negative peer influences (intermediate outcome), all of which leads to**
- **A reduction in marijuana use (long-term outcome).**

Graphically, the theory of change might look like this:



Or, the objectives could be grouped by domains and look like this instead:



The graphics shown above and on the previous page are an example of a logic model for a theory of, or pathway to, change in marijuana use. Logic models are a useful way to conceptually map the changes you hope to achieve, as will be explained further in chapter 4.

As you can already see, PATHWAYS depends in large part on the data you collect—the foundation on which you identify the substance abuse problem, identify the population, assess needs and resources, identify gaps, set your goals and objectives, and develop your theory of, or pathway, to change. At this point, however, you have only a tentative theory of change. Before you can proceed, you must first conduct a prevention resources assessment to identify if there are other programs and/or organizations addressing these same risk and protective factors for this same population. You want to both avoid duplication of efforts and maximize existing resources. A needs and resources gap analysis will help you identify the kinds of resources that are missing in your community and will help as your refine your theory of change to address a comprehensive prevention plan.

Identify Existing Prevention Resources

Once your team has analyzed local data and identified the target population's priority risk and protective factors, you will need to determine which of your community's existing resources are available or already engaged in addressing these same prevention issues. The last thing you want to do is to duplicate existing programs and services.

Moreover, if there are existing programs and/or services, the best approach is collaboration for coordinating current resources with new interventions. As has been pointed out earlier in this chapter, a team approach to substance abuse prevention—the community coalition model—is usually preferable. Combining resources, skills, and political capital in a communitywide approach will result in the greatest chance for long-term impact and lasting success.

The list at right shows examples of resources that might be found in your community. Your resources assessment should identify which agency or organization is delivering the program, the target population, the program's objectives, the prevention approaches used, whether the program is evidence based and has been evaluated, frequency of program delivery, current level of funding support for the program, and the skills of those implementing the program. This information helps you understand not only which programs exist in your community but also the adequacy of these programs in meeting the needs you have identified

You may find that existing programs are already targeting the same population(s) and risk and protective factors that your needs assessment has identified. As you develop a plan for addressing substance abuse in your community, consider how these existing resources fit into your overall approach. Integrate them into your collaborative effort: This is a perfect opportunity to think in terms of a coalition if you have not already done so. The whole is always greater (and more effective) than the sum of its parts.

Community Resources

- Number of community organizations providing emergency services (e.g., food, shelter) to families
- Number of community organizations providing services beyond the crisis situation to families (e.g., job placement, skills training, etc.)
- Number of faith-based organizations
- Number of resident volunteer neighborhood organizations and services
- Dollars available for prevention
- Participation at police/community council meetings
- Participation at community board meetings
- Number of afterschool recreational programs
- Number of alternative schools for youth
- Number of agencies willing to be involved in collaborative effort (i.e., new or existing coalitions)
- Number of juvenile court rehabilitation services
- Participation of parents in school meetings
- Number of agencies providing child care services
- Number of agencies providing parenting and family services
- Number of in- and out-patient substance abuse treatment facilities for parents and children
- Community norms, as measured by number of substance abuse-related hospital admissions
- Number of agencies offering family conflict resolution
- Number of family violence shelters and agencies
- Number of family intervention specialists
- Average number of child services agency contacts for home visitation to monitor serious problem situations

Perform Needs/Resources Gap Analysis

Now your needs and resources assessment team is ready to identify gaps in prevention services. This naturally follows your assessment of existing resources. Comparing your prioritized needs with the resources identified earlier will enable your team to determine what prevention service gaps exist in the community and how to craft a comprehensive prevention plan that builds on existing efforts and services and fills the gaps.

If you are a new coalition, you may find many more gaps than resources. Do not overlook the obvious, however. Police departments, social service agencies, the faith community, public and private schools, and other community organizations often have substance abuse prevention programs as part of their day-to-day operations. Often, the problem is that these programs were not selected and/or developed, for a variety of reasons, based on an accurate needs assessment of the target population(s). Thus, you may find that even if a number of programs and resources exist, there are still serious gaps in programs focused on the risk and protective factors identified by your needs assessment data.

You may also encounter a situation where an agency or organization is addressing the same population that your needs assessment has identified, but is doing so with an inadequate or ineffective program. Again, you will not want to duplicate services to this population without first attempting to collaborate with the service provider in question to maximize resources, funding, and effectiveness.

Data Collection and Effective Use

Data—collected from archival records and databases, surveys, interviews, focus groups, direct observation, and stakeholder input—provides the foundation for a multilayered assessment of prevention needs and resources. The following steps, addressed in this part of PATHWAYS, will help you understand the importance of finding and using data effectively:

- Identification
- Collection
- Analysis
- Expert guidance when needed
- Ongoing assessment

Identification of Data

You can find information about substance use/abuse behaviors and the underlying risk and protective factors and conditions that contribute to the problems from a variety of data. If you cannot pinpoint the information directly, you can use *indicators*, or *proxy measures* (substitute measures for a concept that is not directly observable), to determine how prevalent certain problems and other risk and protective factors may be in your community. Because the concepts are not directly observable, the use of several proxy measures will build a much more reliable indication of a concept than just a single proxy by itself.

Figure 1.5 suggests sample indicators, or proxies, for general family and community level risk. Research has shown these to be good proxy measures. For example, you cannot take a direct measure of how unhappy an individual might be. But you *can* measure the symptoms of unhappiness, such as short attention span, difficulty sleeping or sleeping too much, and general depression. Similarly, when you cannot measure a specific risk factor, you look for symptoms of the risk factor, as also demonstrated in figure 1.5.

Risk Factors	Social Indicators (Proxy Measures)
Early and persistent antisocial behavior	• Elementary school emotional disturbance placement statistics • School incident reports • Juvenile arrest statistics
Family management problems	• Children living away from parents • Runaway statistics
Low commitment to school	• Percent of students who drop out • Truancy reports
Transitions and mobility	• Number of new homes constructed • Number of households in rental properties • Net migration of students in and out of schools

Figure 1.5
Sample of Selected Risk Factors and Associated Proxies

Social indicators are measures of social issues that have been tracked over time (e.g., family and community income, educational achievement, health status, per pupil education expenditures, etc.). Social indicators are often used to document levels of community and group risk and to serve as proxies for the existence of social problems, such as substance use/abuse. Sample community and family level indicators are shown in figure 1.6.

Data falls into two broad categories:

Archival Data—This is information stored or archived on a periodic basis, and it is generally the simplest kind of data to gather. All types of agencies keep records and collect data—school districts, police departments, hospitals, health department, etc. Often this data can be used directly or indirectly to establish an overall picture of substance abuse within the geographic area served by that agency.

When using archival data, always be careful to check how current it is. Often there is a considerable delay in updating databases. If things have changed in your community recently, they might not be reflected in your community's archival data. Since you need to use current data to develop an accurate picture of the problems in your community or for your targeted population, be certain you aren't using old data as you conduct your needs and resources assessment.

Survey Data—This is information gathered from specially designed survey instruments that provide data about the feelings, attitudes, and/or behaviors of individuals within specific populations. Collection of this data can yield valuable and detailed evidence about the substance use/abuse behavior(s) and risk and protective factors for groups of people (as in figures 1.4 through 1.6), and, therefore, what they may be for your identified population. You will then have to collect more detailed information to pinpoint the specific risk and protective factors for your population.

Survey data can be collected in a variety of ways: paper and pencil questionnaires, telephone or face-to-face interviews, and checklists. You may need to collect survey data from persons who represent otherwise hard-to-access individuals or populations (proxies). You can also collect survey data through key stakeholders, who can provide information about the behavior and characteristics of the individuals under study or linkages to other individuals and agencies that have this information.

Figure 1.6 Sample Social, Community, and Family Indicators

Risk Factors	Social Indicators (Proxy Measures)	Resources
Economic Status of Community	• Number of families living below the poverty line • Number of families living in shelters • Rate of "doubled-up" housing families • Rate of families without health insurance coverage	• Number of community organizations providing emergency services (e.g., food, shelter) to families • Number of community organizations providing services beyond the crisis situation to families (e.g., job placement, skills training, etc.) • Money available for prevention • Number of agencies willing to be involved in collaborative effort (i.e., new or existing coalition)
Neighborhood Disorganization	• Rate of population turnover in a community • Heterogeneity of the environment • Incidence of graffiti, abandoned lots/buildings • Number of violence and felony offenses by ZIP code or census tracts • Number of drug-related offenses by ZIP code or census tracts • Number of facilities selling alcohol by ZIP code or census tracts	• Number of faith-based organizations • Number of resident volunteer neighborhood organizations and services • Rate of participation in elections (national, state, and local) • Participation at police/community council meetings • Participation at community board meetings
Anti-social Behavior	• Number of reported school disciplinary incidents • Rate of truancy • Rate of juvenile offenses—drug-related, violent, property • High child-to-teacher ratio in schools	• Number of afterschool recreational programs • Number of alternative schools for youth with disciplinary problems • Involvement of police in truancy enforcement • Number of juvenile court rehabilitation services • Participation of parents in school meetings
Family Management and Parenting Practices	• Number of single-parent homes • Number of single parents working two jobs	• Number of agencies providing child care services • Number of agencies providing parenting and family services
Family History	• Number of adult offenders who have children who appear in Family and Criminal Court for substance abuse-related offenses	• Number of in- and out-patient substance abuse treatment facilities for parents and children • Community norms, as measured by number of substance abuse-related hospital admissions
Family Conflict	• Number of parental petitions of neglect filed in Family Court • Number of foster care placements • Number of kinship placements outside of the home • Number of reported domestic violence calls for service	• Number of agencies offering family conflict resolution • Number of family violence shelters and agencies • Number of family intervention specialists • Average number of child services agency contacts for home visitation to monitor serious problem situations

You may also encounter references to two types of data—quantitative and qualitative—within the broad archival and survey categories:

Quantitative data can refer to both archival records and surveys. Drug use surveys, arrest reports, emergency room admissions, and traffic reports are typical of quantitative data. Quantitative data consists of counts, rates, or other statistics that document the actual existence or absence of problems, behaviors, or occurrences.

Qualitative data reflects individual and community perceptions gleaned from focus groups, stakeholder interviews, and surveys. This type of data results in descriptions of problems, behaviors, or events. It is possible to add a quantitative component to qualitative data (e.g., of the 1,200 young people interviewed, 400 reported weekly alcohol use).

Because qualitative information can reflect the feelings and thoughts of people similar to those you will be working with, it often enhances the value of the available quantitative data. You may find it useful in persuading various audiences about the difference your prevention initiative can actually make in the lives of people within a particular community.

Data Specificity

Practically speaking, it is helpful to think about data on different levels of specificity. Each level addresses the substance abuse patterns of a different universe of people. For example, national surveys and the like may shed light on the beliefs and behaviors of middle school children across the country. A state survey may report the very same data for the middle school children in that state, perhaps even comparing its children to national averages to identify the existence of a problem or to determine if and how the state contributes to what has been identified in a national survey as a national trend. A county survey may collect and report the very same data as the state, comparing its findings to the rest of the state and perhaps comparing its children to those in other socially similar counties, and so on down to the local level and school district, even a particular school within the district.

Notice that each level of data reflects the substance abuse attitudes and behaviors of a narrowing band of people. As you move from a general overview to increasingly smaller and more specific groups, the data from the preceding level helps focus attention more accurately and effectively on what is needed at the next level to clarify the problem. Your data collection efforts will be directed toward two goals: (1) to target your environmental and/or individual program effort(s) to the risk and protective factors you wish to change and (2) to measure the changes resulting from your intervention(s).

Collecting the level of data needed to accurately link individuals or specific geographic areas with programs can be a formidable challenge. Making a mistake at this point in the needs assessment is a serious matter and could compromise the outcomes you desire. This can happen if your goal is inappropriate, or if you assume that national, state, county, or school district data are representative of your more specific community- or neighborhood-based group. If you fail to narrow your identified group appropriately, you almost certainly will not be able to select or develop a program that addresses the group's very specific risk and protective factors, and you jeopardize the likelihood of achieving the intended outcomes or documenting the intended changes linked to your intervention. This remains true even if your group and/or program is preselected.

For instance, if your school district data indicates that there is a spike in marijuana use at the eighth grade, you must delve deeper to determine, if possible, which eighth graders are responsible for that spike and what their very specific and individual risk and protective factors are before you can select the most effective

Online sources that may be useful as you collect data for your needs assessment:

SAMHSA's PREVLINE—Contains links to many data sources: www.health.org

SAMHSA's Prevention Pathways—Includes information on prevention programs, program implementation, evaluation, technical assistance, online courses, and a wealth of other prevention resources: http://preventionpathways.samhsa.gov/

Office of National Drug Control Policy—Lists 30 links to data surveys and resources: www.whitehousedrugpolicy. gov/

National Criminal Justice Reference Service—Contains links to many sources of national and state crime statistics: www.ncjrs.org

Centers for Disease Control and Prevention—Contains links to many sources, including the Youth Risk Behavior Surveillance System survey: www.cdc.gov/

program. Narrowing your focus to just one or two specific middle schools may not be enough; you may have to focus very specifically on the individuals involved in the problem behavior. It is the risk and protective factors of those individuals that will inform your decision about which program has the greatest probability of success. If the identification of specific eighth graders is not possible, identifying risk and protective factors that may be related to the spike in marijuana use is the next step. Then you can focus on a program that addresses the specific risk and protective factors that are germane to your school district.

Remember, even if you are given a program and an identified population, you should collect the data to determine the very unique characteristics of this specific population in your community. Having this data will enable you to decide if the program you have been given must be adapted to fit your identified population's needs (see chapters 3 and 4 for more on program fidelity and adaptation).

The remainder of this section describes a variety of data sources already available to you and what kinds of additional data you might need to collect on your own. As you might expect, the hardest kind of data to collect is community, neighborhood, and individual data. Yet, your success depends on it. And keep in mind that participating in a coalition might ease the burdens of data collection considerably.

National Data

National data identifies trends that are used to formulate national prevention policy. There are a number of national surveys and databases that are used in this way, such as the National Household Survey on Drug Abuse, the Youth Risk Behavior Surveillance System survey, and the Monitoring the Future Survey. Understanding national trends will provide clues as to the type of substance abuse behaviors that may be occurring in your community. However, you will still need local data to describe the unique situation where you live, which may or may not mirror national trends.

State and County Data

State and county data may be available from various sources, such as agencies providing child and family services (e.g., drug-affected babies); law enforcement agencies (juvenile and adult arrests for DUI and other drug offenses); department of transportation (alcohol-related traffic deaths and accidents); and the state medical examiner (drug-related deaths). Usually this data is used to forecast trends and guide state officials regarding drug issues. Again, you still need local data to identify the substance abuse behaviors that are occurring in your community.

SAMHSA's CSAP has funded large-scale needs assessments in many states and territories, which have included community-level school surveys. In states/territories that have received SAMHSA funding for a needs assessment project, this data may be available from the state agency responsible for substance abuse prevention.

Community and Individual Data
While there may be some local data available to you (e.g., school district surveys), it is likely that you will have to engage in hands-on data collection at the local level, making particular use of key stakeholders in law enforcement, schools, and within neighborhoods. At this stage in your needs assessment, you are focusing on the risk and protective factors of individuals or specific community areas. This may be the first time for this data to be collected in a comprehensive manner. The following section on data collection outlines how you might go about collecting this individual- and community-level data. See also the box on the following page on community-level sources of data.

Data Collection

You may need to assemble a team to help with data collection. This team might include individuals with particular expertise in data collection and/or ties to, or influence with, those in control of local data sources. Often stakeholders or partners are included, because they are well positioned to provide information within their areas of responsibility. These may be school principals, teachers, school counselors, probation officers, caseworkers in the social service system, health department workers, administrators of homeless shelters, police and housing authority personnel, medical practitioners, and others.

The data collection team becomes a resource to: (1) provide access to data, which may be difficult to collect; (2) help identify underlying risk and protective factors; (3) serve as liaison to others in the community with relevant expertise; and (4) enrich data interpretation with knowledge of the population, policy, or environment you plan to address.

As discussed above, most data collection relies on one or several of the following data collection methods:

- Archival data from community commissions, agencies, and other sources

Community-Level Sources of Data

Adapted from National Institutes of Health, 1998.

It is not easy to identify sources of information at the community level; find out the types of information available; and establish ways to obtain the information initially and, perhaps, periodically. Information about drug abuse is likely to be confidential. The people responsible for collecting information and reporting on drugs are usually very busy, and they may have reservations about sharing information.

If your agency does not already have connections with community data sources through its members, there are two ways to initiate the process of identifying sources. They can be done concurrently. The first way is to get local telephone numbers of criminal justice, health, and treatment agencies, so that calls can be made to identify potential data sources. The mayor's office, chamber of commerce, or a similar source may have a directory of human resource organizations, or you can simply use the local telephone directory. Community or local telephone books generally specify pages for telephone numbers of local police and sheriff departments. Regular telephone directories may list these under Government Listings. Hospital and treatment programs may be listed in the yellow pages or the business section (by name). Support staff at network-backed agencies may be helpful in this task.

The second way to start identifying potential information sources at the community level is to start at the top and work down. To identify sources of arrest data, for example, begin by calling individuals at the state alcohol and drug abuse agency who can identify and provide a list of the substance abuse treatment programs that are located within or serve particular communities. Call the state police department and the UCR office to find out who their contacts are at the local level. In trying to identify individuals and departments within hospitals, contact representatives of the state health department to find out what and whom they know.

- Surveys based on self-administered questionnaires
- Interviewer-administered survey instruments (from key stakeholders, service providers, or identified population surveys)
- Focus groups
- Direct observations
- Review of archival records and databases (not created primarily for the purpose of the needs assessment)

Each of these methods can provide useful needs and resources data. The selection of methods for collecting data will depend on the focus (or foci) of your interventions. Ideally, you will use multiple data collection methods, because the biases inherent in one method can be offset by another. The following scenario illustrates examples of different data collection methods and how they can be utilized together:

Example: "Combining Data Collection Methods Effectively"

A mid-sized town in Texas was stunned when a two-car accident resulted in the deaths of two local teens and the serious injury of four other young people. Local authorities determined that alcohol and illicit drug use by the drivers of the two cars was the primary cause of the accident. Determined not to let this kind of tragedy occur again, citizens and family members began to look at their community together to learn what they needed to do.

First, they explored county records of car accidents and emergency room admissions related to late night injuries. They also worked with law enforcement officials who helped a committee examine arrest records for driving-related offenses. They worked with criminal court administrators to examine the outcome of judicial proceedings related to these arrests. From local law enforcement officials, they also obtained information about laws related to possession of alcohol and other drugs by minors and enforcement of those laws. They probed existing data with a view toward reformulating laws in the interest of community safety.

Next, they held a focus group with teenagers from the same high school attended by the youth involved in the accident. They explored the thoughts, feelings, experiences, assumptions, etc. of

the participants and learned that alcohol and drug use among high schoolers was more prevalent than they imagined. Many of the students were troubled by it, too.

They also learned that the school had conducted an anonymous survey in the past year that covered student substance use and risk and protective factors. The survey results were shared, thanks to school administrators who were part of the team. They continued collecting additional data in accordance with a comprehensive plan developed by the team responsible for framing the questions that needed to be reliably answered.

Volunteers interviewed key persons in the community to get their personal opinions about the problem. They interviewed the sheriff, the high school principal, several teachers, guidance counselors, the emergency room doctor, and several other key stakeholders in their town to guide their search for answers.

Armed with these data, they were ready to put the pieces of the puzzle together to see what still needed to be done to reach youngsters involved in the problem behaviors, to prevent others not yet engaged from becoming involved, and to identify the risk and protective factors of both groups.

Data Analysis

Once the initial data collection is complete, as a prevention practitioner, community specialist, or coalition leader, you will now work with other community partners and evaluators to analyze the data. This analysis will serve as a foundation to help you develop a strategic plan and select the appropriate environmental interventions and/or programs. Your data analysis can support existing policies and programs and provide justification for grant applications.

Your analysis will also identify the data that are the most compelling, as well as those that are most suitable for use as baseline data. This is the initial information collected prior to program implementation, against which outcomes can be compared at strategic points during, and at completion of, an intervention to demonstrate change. For example, if your data shows that 20 percent of eighth graders have used mar-

ijuana within the past 30 days, you can use this information as your baseline against which to compare future surveys. If you are able to show that 12 months after completion of your intervention, just 15 percent of eighth graders used marijuana within the past 30 days, you will be well on the road to demonstrating positive outcomes for your intervention. A word of caution, however, is needed here. The reduction in marijuana use might be attributable to factors other than your intervention; use of a comparison or control group is advisable to increase confidence in your outcomes, but is often difficult to manage.

As your analysis is unfolding, consider the following:

- Use the data to help you define the general substance abuse problem(s). The data can confirm the seriousness of a perceived problem, especially when compared to previous years. The data also may indicate if the problem appears to be more serious among certain subgroups (e.g., age groups, gender, geography, racial/ethnic background).
- Compare your data with other similar data (e.g., national, state, county, etc.). Are the trends similar? Are the rates about the same? Are they going up or down?
- Analyze what can be interpreted from the data.
- Decide on the likely target population.
- Evaluate the relationships among the risk and protective factors for the identified population and their relative importance. What is the appropriate mix of risk and protective factors to address? Is there an identifiable cluster of risk and protective factors that could be addressed together?
- Consider if the risk or protective factors can be changed. Most factors fall into one of three categories, or degrees, of changeability:

    1) Some risk and protective factors can be changed completely. For example, academic failure can usually be remedied through tutoring and/or placement in special education classes.

    2) Some risk and protective factors can be modified, but not changed completely. The availability of alcohol, tobacco, or illicit drugs in a community is one example. Your program might include environmental interventions to reduce the availability, but you are not likely to eradicate the problem completely.

3) Some risk factors cannot be affected directly (or readily), such as extreme economic deprivation in a community.

- Consider associated problems you have not previously addressed in your analysis.
- Determine what resources exist in the community.

You will likely identify several critical problems during this analysis, and you will need to set priorities to determine which problems should be addressed first. There is no magic formula! Instead, you will base your criteria for prioritizing on the relative seriousness of the situation, the resources available (including the involvement of community partners), and the changeability of the factors identified.

Use Expert Guidance When Needed

Data can be time consuming to collect and confusing to analyze. It can be difficult to decide which information is relevant and which is not. Much of the collection and analysis involves subjective decisions that are enhanced by specialized expertise. Given the importance of needs assessment as the foundation for all of your future efforts, it makes good sense to include someone with expertise in this area in your coalition. If resources permit, this might include hiring a professional evaluator.

If you need such expertise, but are short on resources, you may have to search for a creative solution. You may find the help you need at a local university, corporation, or even a large teaching hospital. Invite such groups/institutions to become part of your coalition. If you cannot secure these services as in-kind assistance, consider bartering for this important resource. University researchers or graduate students may be able to use your data for their own projects. Some experts may be willing to donate their time and assistance to you now if, at a later time when your funding is more secure, you are willing to contract with them for their paid services.

Ongoing Assessment

Your needs and resources assessment should be ongoing. The initial data collected and analyzed to describe your environmental concern(s) and/or your target population's substance abuse problem and to identify risk and protective factors constitute baseline data for your prevention work. They define precisely the population and the risk and protective factors that you will address. Baseline data constitute the standard, or baseline, against which you will measure all subsequent changes that occur as a result of your program(s).

As you will see in later chapters, tracking your progress through periodic data collection, or documentation, is an ongoing process. If you are a coalition, it will ensure that your partners remain on target, that extraneous factors do not intervene, and that the outcomes—immediate and intermediate, as well as long-term impacts—are as anticipated. You may find that additional assessment will be needed along the way if evaluation at the appropriate stages of implementation does not show the expected changes.

Evaluation Tutor

SAMHSA's CSAP's Prevention Pathways Web site at http://pathwayscourses.samhsa.gov/samhsa_pathways/courses/index.htm **includes a number of useful online courses for prevention professionals.**

Reviewing these courses is appropriate at this data collection juncture, as well as later during implementation and final evaluation stages.

- **Evaluation For the Unevaluated: Program Evaluation 101**
- **Evaluation For the Unevaluated: Program Evaluation 102**
- **Wading Through the Data Swamp: Program Evaluation 201**

In Summary

Participating in a comprehensive needs and resources assessment process enables prevention practitioners and community collaborators to take a hard look at the underlying factors that contribute to the general substance abuse problem. This is a prerequisite for developing a comprehensive plan to address the problem(s).

This process includes reviewing different types of data and considering the value of creating a team effort in order to gain access to critical data, obtain data from particular sources, or explain the data you already have.

Although there is no exact formula for responding to the needs you will identify, it is important that you understand the value of utilizing someone who has expertise in assessing the information and who can provide specific guidance.

The conclusions from your analysis of the data form a pathway for setting goals and objectives for your comprehensive plan and developing a credible theory (or theories) of change. From this theory of change you can develop a logic model to guide your work. You will find additional information about logic models and how to use them to organize your program in chapter 4.

Once you complete your multi-layered needs and resources assessment, you will be ready to tackle the steps outlined in subsequent chapters. Further steps include assessing your capacity, selecting and implementing your intervention, and evaluating your efforts. By the time you complete this process, you will see how all of these steps relate and interact in a logical way. You will be on your way to PATHWAYS.

SAMHSA Resources

SAMHSA-related Web sites:

Center for Substance Abuse Prevention/National Center for the Advancement of Prevention Decision Support System: www.preventiondss.org

Centers for the Application of Prevention Technologies: www.captUS.org

Prevention Online (PREVLINE)—SAMHSA's National Clearinghouse for Alcohol and Drug Information: www.health.org

A number of useful SAMHSA technical assistance bulletins are available through the National Clearinghouse for Alcohol and Drug Information (NCADI), P.O. Box 2345, Rockville, MD 20847. A full list is available at http://store.health.org/. See especially the Web sites for the specific bulletins listed below.

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Following specific guidelines will help you assess cultural competence in program design, application, and management. (1994). Available: www.health.org/govpubs/MS500/

Identifying the target audience. (1997). Available: www.health.org/govpubs/MS700/

Pathways online

SAMHSA's CSAP's Decision Support System Web site can be located at www.preventiondss.org. Here you will find this document and additional materials to assist you as you work through the Pathways process.

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